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### 401.03 CONSTRUCTION REQUIREMENTS

For non-commercial mix, set the initial job mix targets before producing more than 2000 tons (2000 MT) of plant mix surfacing. Plant mix produced prior to setting initial targets is defined as start-up mix. Furnish the Project Manager 1 copy of form CB30QA-VM (S) with the proposed job mix targets for VMA, VFA, VTM, and D/A. Once the job mix targets are set, Quality Assurance (QA) will be applied to all subsequent plant mix produced. No pay incentive or disincentive will be applied to the plant mix until the targets are set. Produce start-up mix meeting the criteria listed in accordance with the Start-Up Job Mix Range in Table 701-18. A Hamburg wheel track test (Hamburg) will be run when the produced mix does not meet all the criteria specified in accordance with the start-up job mix range in Table 701-18.

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The Contractor may revise the job mix targets one time during the contract. Submit revised job mix targets no later than 2 business days following completion of plant mix production, or initial job mix targets will be used to determine payment. If more than one project is included in the contract (tied projects), the job mix targets may be revised for each project only if the projects use different mix designs. Submit to the Project Manager 1 signed copy of form CB30-QA-VM (S) with the revised job mix targets for VMA, VFA, VTM and D/A. The revised targets will be applied retroactively to all plant mix produced after the initial targets are set, and payment will be recalculated.

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#### 401.03.1 Mix Design

Submit to the Project Manager 4 copies of a plant mix design following AASHTO R 35 and meeting AASHTO M 323. Include the binder supplier's recommended mixing and compaction temperature ranges. This compaction temperature range is for testing purposes only. Choose the design air voids target to be the lowest value, within the range of 3.4 to 4.0, as long as all other criteria are met. Report the D/A for the target asphalt content. The mix design is to be produced on a total weight of mix basis. On contracts with multiple gravel sources, or combination of gravel sources, provide a mix design and meet all the requirements for each source or combination of sources and suppliers. For mix designs using RAP, furnish the asphalt content and gradation of the RAP. Furnish the total asphalt content and Job Mix Formula gradation including the RAP as aggregate. Furnish all specific gravities.

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#### 401.03.3 Test Procedures

Plant mix will be evaluated in accordance with the following test procedures:

- MT 303 - Sampling Bituminous Materials
- MT 314 - Method of Test for Bulk Specific Gravity of Compacted Bituminous Mixtures
- MT 319 - Ignition Oven Burn Procedure
- MT 320 - Gradation of Aggregate Recovered by MT 319
- MT 321 - Maximum Specific Gravity of Bituminous Mixtures (Rice Method)
- MT 328 - Method of Establishing Field Target Density for Plant Mix Surfacing Density Control
- MT 332 - Gyratory Compaction of Bituminous Mixtures
- MT 334 - Wheel Tracking Test Procedure (Hamburg Device)

When testing material in accordance with MT 332, when the height of gyratory specimens is out of tolerance, an evaluation will be conducted to determine if the specimen will be retained or discarded. The Department will check plant production information, test equipment, processes, calculations, etc. for errors. If a problem is noted in processes controlled by the Contractor, the test will be considered valid. If a problem is found with the testing or other Department process,



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the test will be redone on material from the same sample, if possible. If a non-correctable testing problem is found, the specimen will be discarded.

#### 401.03.5 Acceptance Commercial Plant Mix Surfacing

For the first 1000 tons (1000 MT), a \$3.00/ton maximum price reduction in the unit bid price for plant mix surfacing will be applied for any mix represented by a test not meeting the VMA, VFA, VTM, or D/A specified. A \$3.00/ton price reduction (\$9.00/ton maximum) in the unit bid price for plant mix surfacing will be applied to any subsequent mix for each test not meeting the VMA, VFA, VTM, or D/A specified. Price reductions will be assessed on the quantity of material represented by each failing sample. The quantity of material represented by each sample is the total tons of material produced divided by the total number of samples representing the material.

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